REMARKS

The present Amendment amends claims 21, 24, 26, 28, 31, 34 and 37, leaves claims 22, 23, 25, 27, 29, 30, 32, 33, 35, 36 and 38 unchanged and adds new claims 39 and 40. Therefore, the present application has pending claims 21-40.

In paragraph 1 of the Office Action the Examiner acknowledges Applicants claim for priority. However, the Examiner alleges that a certified copy of said priority document has not been filed. A certified copy of the priority document was filed on June 6, 2000 in the parent application, application Serial No. 09/588,002, filed June 6, 2000, a copy of said Letter Claiming Priority submitting a copy of the priority document is attached along with a copy of the postcard receipt evidencing its filing in the United States Patent and Trademark Office. Therefore, the Examiner is respectfully requested to withdraw his allegation that a certified copy of the priority document has not been filed.

In paragraph 2 of the Office Action the Examiner objected to the Abstract as not complying with the current rules of practice limiting its length to the range of 50-150 words. The present Amendment amends the Abstract to reduce the number of words to a range within 50-150 words. Therefore, this objection is overcome and should be withdrawn.

In paragraph 3 of the Office Action, the Examiner provisionally rejected claims 21-30 under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 1, 4 and 6 of copending application Serial No. 09/588,002, now U.S. Patent No. 6,785,225. Applicants do not agree with this rejection. However, in order to expedite prosecution of the present application filed

on even date herewith is a Terminal Disclaimer obviating this rejection. Therefore, reconsideration and withdrawal of this rejection is respectfully requested.

It should be noted that the filing of the Terminal Disclaimer was not intended nor should it be considered as an agreement on Applicants part that the features of the present invention as recited in claims 21-30 are taught or suggested by claims 1, 4 and 6 of the copending application. The filing of the Terminal Disclaimer was simply intended to expedite prosecution of the present application.

Claims 21-30 stand rejected stand rejected under 35 USC §102(b) as being anticipated by Ishibashi (U.S. Patent No. 5,663,949). This rejection is traversed for the following reasons. Applicants submit that the features of the present invention as now recited in claims 21-30 are not taught or suggested by Ishibashi whether taken individually or in combination with any of the other references of record. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Amendments were made to claims 21-30 so as to more clearly recite that the present invention is directed to a communication apparatus connectable to a network which permits communication across a plurality of hierarchical layers. According to the present invention, the communication apparatus includes lower layer apparatuses which are connected with communication lines of a lower layer and communication lines of an upper layer and have means for line switching in the lower layer.

According to the present invention, the lower layer is a lower layer as defined by the layer hierarchy of the Open System Interconnection (OSI) reference model as

set by the International Standards Organization (ISO) and the upper layer is an upper layer as defined by the layer hierarchy of the OSI reference model as set by the OSI. The layer structure to which the present invention is directed is illustrated, for example, in Table 1 of the present application.

The communication apparatus of the present invention further includes upper layer apparatuses which are connected with the communication lines of the upper layer and have means for line switching in the upper layer. According to the present invention, the communication apparatus detects line failure and coordinates line switching by the line switching means of the lower and upper layer apparatuses by using failure information on the lower and upper layer communication lines.

Further, according to the present invention, the above described detection of line failure can be performed by means for detecting and such means for detecting can determine the order of switching by the switching means of the lower and upper layer apparatuses by using the failure information and restores faulty communication lines.

The above described features of the present invention now more clearly recited in the claims are not taught or suggested by Ishibashi.

Ishibashi teaches a line protection switching system of a duplexed fiber interface shelf. The line protection searching system taught by Ishibashi is intended to reconcile conditions of duplexed fiber interface shelves which performs line switching by employing APS bytes on an ISDN network.

In the Office Action the Examiner alleges that Ishibashi shows lower and upper layer apparatuses and lower and upper layer communication lines in Figs. 1

and 26 of Ishibashi. However, it appears that the Examiner has a complete misunderstanding of the teachings in Ishibashi and hierarchically arranged layers to which the present invention is directed.

In Fig. 26 of Ishibashi, the switches 1 are each formed on the same communication layer and as such are interconnected to each other by the communication lines 130 on said same communication layer. There is absolutely no teaching or suggestion in Ishibashi that the switches 1 are related to each other in a hierarchical manner as in the present invention. As is well understood by those of ordinary skill in the art hierarchically arranged layers allows for communications to be entered into a communication apparatus at an upper layer then to exit the communication apparatus at a lower layer. Such a structure provides that different types of communications are conducted on the various layers which allows, for example, an ATM apparatus to operate at a virtual or a higher layer, whereas actual devices which may form the network operate at a layer lower than the ATM apparatuses. Such features are clearly not possible in Ishibashi.

In Ishibashi, each of the switches 1 are disclosed as an ATM switch. Thus, in Ishibashi, since the communications are conducted between ATM switches on the communication lines 130 interconnecting the switches 1 such communications can only occur on the same layer as defined in Table 1 of the present application namely, the upper (ATM) layer.

Fig. 1 of Ishibashi simply illustrates one of the components of the switches 1 used to conduct communications across the communication lines 130 which are described in col. 1, lines 17-19 of Ishibashi as optical fiber lines 130. Thus, in

Ishibashi the fiber interface cards 10 and 11 and the fiber interface common cards 20 and 21 merely form part of the fiber interface shelf 3 which itself is included in each of the switches 1 to allow for each of the switches 1 to conduct communications across the communication lines 130. The Examiner's attention is directed to Fig. 27 of Ishibashi which clearly illustrates each of the components of each of the switches wherein the components of each of the switches 1 merely allow for communications between each of the switches 1 at a single upper layer. Ishibashi does not teach or suggest how and if lower layer communications are being conducted via the switches 1 and communication lines 130.

The present invention differs substantially from that taught by Ishibashi being that the present invention provides as described above lower layer apparatuses and upper layer apparatuses which allow for a communication apparatus to conduct communications across a plurality of hierarchically arranged layers such as that illustrated in Table 1 of the present application. Such features are clearly not taught or suggested by Ishibashi.

Thus, Ishibashi fails to teach or suggest a communication apparatus connectable to a network which permits communication across a plurality of hierarchical layers as recited in the claims.

Further, Ishibashi fails to teach or suggest lower layer apparatuses which are connected with communication lines of a lower layer and communication lines of an upper layer and having means for line switching in the lower layer and upper layer apparatuses which are connected with communication lines of the upper layer and have means for line switching in the upper layer as recited in the claims.

Still further, Ishibashi fails to teach or suggest that the lower layer is a lower layer as defined by the layer hierarchy of the Open System Interconnection (OSI) reference model as set by the International Standards Organization (ISO) and that the upper layer is an upper layer as defined by the layer hierarchy of the OSI reference model as set by the ISO as recited in the claims.

Thus, as is clear from the above, Ishibashi fails to teach or suggest numerous features of the present invention as recited in the claims. Therefore, reconsideration and withdrawal of the 35 USC §102(b) rejection of claims 21-30 as being anticipated by Ishibashi is respectfully requested.

As indicated above, the present Amendment adds new claims 39 and 40. New claims 39 and 40 recite many of the same features shown above to not be taught or suggested by Ishibashi or any of the other references of record whether taken individually or in combination with each other. Therefore, new claims 39 and 40 are allowable over the prior art of record for the same reasons as claims 21-30.

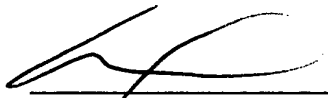
The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the reference utilized in the rejection of claims 21-30.

In view of the foregoing amendments and remarks, Applicants submit that claims 21-40 are in condition for allowance. Accordingly, early allowance of claims 21-40 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (501.38634CX1).

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP



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